Sexually Transmitted Disease Surveillance 1999

Division of STD Prevention

September 2000

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for HIV, STD, and TB Prevention
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Suggested Citation

Division of STD Prevention. *Sexually Transmitted Disease Surveillance, 1999*. Department of Health and Human Services, Atlanta: Centers for Disease Control and Prevention (CDC), September 2000.

Copies can be obtained from the Office of Communications, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, 1600 Clifton Road, Mailstop E-06, Atlanta, Georgia 30333.

The report is also available by Internet via the CDC home page at:
http://www.cdc.gov/nchstp/dstd/Stats_Trends/1999SurvRpt.htm

Foreword

"STDs are hidden epidemics of enormous health and economic consequence in the United States. They are hidden because many Americans are reluctant to address sexual health issues in an open way and because of the biologic and social characteristics of these diseases. All Americans have an interest in STD prevention because all communities are impacted by STDs and all individuals directly or indirectly pay for the costs of these diseases. STDs are public health problems that lack easy solutions because they are rooted in human behavior and fundamental societal problems. Indeed, there are many obstacles to effective prevention efforts. The first hurdle will be to confront the reluctance of American society to openly confront issues surrounding sexuality and STDs. Despite the barriers, there are existing individual- and community-based interventions that are effective and can be implemented immediately. That is why a multifaceted approach is necessary to both the individual and community levels.

To successfully prevent STDs, many stakeholders need to redefine their mission, refocus their efforts, modify how they deliver services, and accept new responsibilities. In this process, strong leadership, innovative thinking, partnerships, and adequate resources will be required. The additional investment required to effectively prevent STDs may be considerable, but it is negligible when compared with the likely return on the investment. The process of preventing STDs must be a collaborative one. No one agency, organization, or sector can effectively do it alone; all members of the community must do their part. A successful national initiative to confront and prevent STDs requires widespread public awareness and participation and bold national leadership from the highest levels."[1]

[1]Concluding statement from the Institute of Medicine's Summary Report, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*, National Academy Press, Washington, DC, 1997, p.43.

Preface

Sexually Transmitted Disease Surveillance, 1999 presents statistics and trends of sexually transmitted diseases (STDs) in the United States through 1999. This annual publication is intended as a reference document for policy makers, program managers, health planners, researchers, and others who are concerned with the public health implications of these diseases. The figures and tables in this edition supersede those in earlier publications of these data.

The surveillance information in this report is based on the following sources of data: (1) case reports from the STD project areas; (2) prevalence data from the Regional Infertility Prevention Projects, STD project areas, the U.S. Job Corps, the Jail STD Prevalence Monitoring Projects, the U.S. Army, and the Indian Health Service; (3) sentinel surveillance of gonococcal antimicrobial resistance from the Gonococcal Isolate Surveillance Project; and (4) national sample surveys implemented by federal and private organizations.

The STD surveillance systems operated by state and local STD control programs, which provide the case report data, are the sources of many of the figures and all of the statistical tables in this publication. These systems are an integral part of program management at all levels of STD prevention and control in the United States.

Sexually Transmitted Disease Surveillance, 1999 consists of four parts. The **National Profile** contains figures that provide an overview of STD morbidity in the United States. The accompanying text identifies major findings and trends for selected STDs. The **Special Focus Profiles** contain figures and text describing STDs in selected subgroups and populations that are a focus of national and state prevention efforts. The **Detailed Tables** provide statistical information about STDs at the state, county, city, and national levels. The **Appendix** includes the sources and limitations of the data used to produce this report. Included in this section, are figures (A1-A3) that show progress made by states in converting from hardcopy aggregate reporting to electronic line-listed data.

Selected figures and tables in this document identify goals that reflect progress towards some of the Healthy People 2000 (HP2000) national health status objectives for STDs.[1] The original HP2000 health status objectives were developed in 1989 and revised in 1995. **Appendix** Table A1 displays progress made towards the HP2000 Priority Area 19, Objectives 19.1-19.8, for STDs. These objectives are used as reference points throughout this edition of *Sexually Transmitted Disease Surveillance, 1999*. In addition, provisional Healthy People 2010[2] (HP2010) objectives for the rates of gonorrhea, primary and secondary syphilis, congenital syphilis, and the prevalence of *Chlamydia trachomatis* genital infection among specific populations of adolescents and young adults are introduced in both the text and in the **Appendix**.

Any comments and suggestions that would improve the usefulness of future publications are appreciated and should be sent to Director, Division of STD Prevention, National Center for HIV, STD,

and TB Prevention, Centers for Disease Control and Prevention, 1600 Clifton Road, Mailstop E-02, Atlanta, Georgia, 30333.

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[1]U.S. Department of Health and Human Services. *Healthy People 2000: Midcourse Review and 1995 Revisions*. U.S. Government Printing Office, Washington DC, 1995.

[2]U.S. Department of Health and Human Services. *Healthy People 2010 (Conference Edition, in Two Volumes)*. U.S. Government Printing Office, Washington, DC, 2000.

Acknowledgments

Publication of this report would not have been possible without the contributions of the State and Territorial Health Departments and the Sexually Transmitted Disease Control Programs, the Regional Infertility Prevention Programs, the Job Corps, the U.S. Department of Labor, the Indian Health Service, the John Hopkins University Chlamydia Research Laboratory, and the U.S. Army, who provided surveillance data to the Centers for Disease Control and Prevention.

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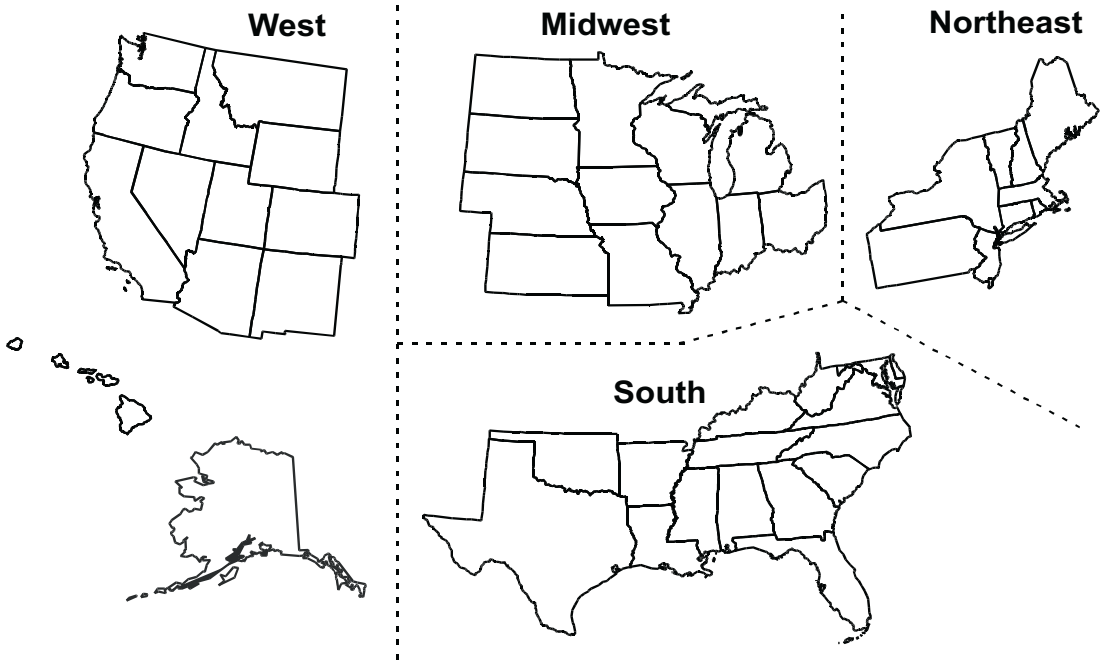

West	Midwest	South	Northeast
Alaska	Illinois	Alabama	Connecticut
Arizona	Indiana	Arkansas	Maine
California	Iowa	Delaware	Massachusetts
Colorado	Kansas	District of Columbia	New Hampshire
Hawaii	Michigan	Florida	New Jersey
Idaho	Minnesota	Georgia	New York
Montana	Missouri	Kentucky	Pennsylvania
Nevada	Nebraska	Louisiana	Rhode Island
New Mexico	North Dakota	Maryland	Vermont
Oregon	Ohio	Mississippi	
Utah	South Dakota	North Carolina	
Washington	Wisconsin	Oklahoma	
Wyoming		South Carolina	
		Tennessee	
		Texas	
		Virginia	
		West Virginia	

National Overview of Sexually Transmitted Diseases, 1999

The logo on the cover of *Sexually Transmitted Disease Surveillance, 1999* is a reminder of the multifaceted, national dimensions of the morbidity, mortality, and costs that result from sexually transmitted diseases (STDs) in the United States. It highlights the central role of STD prevention in improving women's and infants' health and in promoting HIV prevention. Organized collaboration among interested, committed public and private organizations is the key to reducing STDs and their related health burdens in our population. As noted in the report of the Institute of Medicine, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases,*[1] surveillance is a key component of our efforts to prevent and control these diseases.

This overview summarizes national surveillance data on the three diseases for which we have federally-funded control programs: chlamydia, gonorrhea, and syphilis. Several observations for 1999 are worthy of note.

In 1999, 659,441 cases of infection with genital *Chlamydia trachomatis* were reported to CDC. This case count corresponds to a rate of 254.1 cases per 100,000 persons, an increase of 8.5% compared with the rate of 234.2 in 1998. Rates of reported chlamydial infection among women have been increasing annually since the late 1980s when public programs for screening and treatment of women were first established to avert pelvic inflammatory disease and related complications. Chlamydia screening and reporting are likely to expand further in response to the recently implemented Health Plan Employer Data and Information Set (HEDIS) measure for chlamydia screening of sexually active women aged 15 to 25 years of age who are provided care through managed care organizations.[2] The increase in chlamydia case reports in 1999 most likely represents a continued increase in screening for this infection and also increased use of nucleic acid amplification tests (NAATs), which are more sensitive than other types of chlamydia screening tests.

In 1999, the overall reported rate of chlamydial infection among women (404.5 cases per 100,000 females) was four times the reported rate among men (94.7 cases per 100,000 males), reflecting the large number of women screened for this disease. However, with the increased availability of urine testing with the NAATs, men are increasingly being tested for chlamydial infection. From 1995 to 1999, the reported chlamydial infection rate in males increased by 64.1% (from 57.7 to 94.7 cases per 100,000 males) compared with a 27.9% increase in women over this period (from 316.3 to 404.5 cases per 100,000 females).

Data from multiple sources on prevalence of chlamydial infection in defined populations have been useful in monitoring disease burden and guiding chlamydia screening programs. These data show that in many states prevalence of infection remains substantially above the HP2000 goal of 5% for sexually active women aged 15 to 24 years. In 1999, the median state-specific chlamydia test positivity among women aged 15 to 24 years who were screened at selected family planning clinics in all states and the Virgin Islands was 5.5% (range, 2.6% to 15.0%) and at selected prenatal clinics in 22 states, 7.2% (range, 4.5% to 14.4%). For economically-disadvantaged women aged 16 to 24 years who entered the U.S. Job Corps in 1999, from 32 states , the District of Columbia and Puerto Rico the median state-specific prevalence was 11.1% (range, 5.7% to 18.9%). For women aged 17

to 37 years entering the U.S. Army, the overall chlamydia prevalence was 9.9% (range, 4.1%-19.6% by state of residence), and for women aged 15 to 30 years screened at Indian Health Service (IHS) clinics in four IHS regions, the prevalence ranged from 5.4% to 10.8%. For adolescent women entering juvenile detention centers in 21 U.S. counties, the median chlamydia positivity was 13.0% (range, 4.9% to 25.2%). For males entrants to the U.S. Army who were screened in 1999, the overall chlamydia prevalence was 4.7% (range, 1.1% to 10.3% by state of residence). For adolescent men entering juvenile detention centers in 23 counties, the median chlamydia positivity was 4.3% (range, 1.5% to 10.0%). Although these data on prevalence are not entirely comparable because of differences in the performance characteristics of the screening tests and variations in screening criteria, they provide important information on the continuing high burden of disease in these populations.

In parts of the United States where large scale chlamydia screening programs have been instituted, prevalence of disease has often declined substantially. During 1988-1999, among 15- to 44-year-old women participating in the screening programs in Health and Human Services (HHS) Region X family planning clinics, chlamydia test positivity declined 62% (from 13.0% to 4.9%). After adjusting trends in chlamydia positivity to account for changes in laboratory test methods and associated increases in test sensitivity, chlamydia test positivity decreased in five of 10 HHS regions from 1998 to 1999, increased in four regions and remained the same in one. Although chlamydia positivity has declined in the past year in some regions, most likely due to the effectiveness of screening and treating women, continued expansion of screening programs to populations with higher prevalence of disease may have contributed to the increases in positivity seen in other regions. See the **Appendix** for a definition of the HHS regions.

Following a 72% decline in the reported rate of gonorrhea from 1975 to 1997, in 1999 the gonorrhea rate increased for the second year in a row. The gonorrhea rate for 1999 (133.2 cases per 100,000 persons) was 1.2% higher than the 1998 rate (131.6 cases per 100,000 persons) and 9.2% higher than the rate reported in 1997 (122.0 per 100,000 persons). Although screening (usually associated with simultaneous testing for chlamydial infection) and improved reporting may account for a portion of the recent increase, true increases in disease in some populations and geographic areas also appear to have occurred. The 1999 rate for gonorrhea exceeds the Healthy People 2000 (HP2000) objective of 100 cases per 100,000 persons.

The gonorrhea rate in the U.S. among females in 1999 was similar to the rate in 1998 (129.9 and 130.0 cases per 100,000 females respectively). However, from 1998 to 1999, the gonorrhea rate in men increased by 2.5%, from 132.7 to 136.0 cases per 100,000 males. In contrast to the 20 years prior to 1998, which generally exhibited decreasing age-specific rates for gonorrhea, for most 5-year age categories there was little change in the reported rates between 1998 and 1999. Similar to chlamydia, rates of gonorrhea in women are particularly high in 15- to 19-year-olds.

In 1999, new data on gonorrhea prevalence in defined populations were available from several sources. These data showed continuing high burden of disease in adolescents and young adults in some parts of the United States. Among 15- to 24-year-old women attending selected family planning clinics in 32 states, the median state-specific gonorrhea prevalence was 1.0% (range, 0% to 5.2%). For women in this age group attending selected prenatal clinics in 15 states, the median prevalence was 1.1% (range, 0% to 4.1%). For 16- to 24-year-old women entering the U.S. Job Corps in 14 states in 1999, the median gonorrhea prevalence was 3.6% (range, 0.9% to 9.4%). The median gonorrhea prevalence among adolescent women entering juvenile detention centers in 14

counties was 6.4% (range, 1.3% to 14.1%); for adolescent men entering detention facilities in 11 counties, the median prevalence was 1.9% (range, 0.4% to 3.8%).

Antimicrobial resistance in *Neisseria gonorrhoeae* remains a continuing concern, with the most recent threat being the increase in fluoroquinolone resistance that has been reported most notably from several Asian countries. Ciprofloxacin is a fluoroquinolone antibiotic that has been recommended for treatment of gonorrhea by CDC; this is an oral medication that is inexpensive and effectively treats gonorrhea with a single dose. Although only 0.4% of *N. gonorrhoeae* isolates tested through the Gonococcal Isolate Surveillance Project (GISP) in 1999 demonstrated resistance to ciprofloxacin, this was a substantial increase from 1998, when only 0.1% of isolates were reported to be resistant. Of note, 14.3% of GISP isolates from Hawaii in 1999 were resistant to ciprofloxacin, requiring a change in the gonorrhea treatment recommendations in that state. See **Appendix** for a further description of GISP.

Data on characteristics of patients in the GISP sample have been used to obtain information on the sexual orientation of male STD clinic patients with gonorrhea. In 1999, there was a continuing increase in the proportion of GISP isolates from men who have sex with men (MSM). In 1999, the proportion of GISP isolates from MSM increased to 13.1% compared with 12.0% in 1998. In 1988 only 4.0% of isolates were from MSM. The proportional increase in MSM in GISP has corresponded to an absolute increase in gonorrhea cases among MSM at STD clinics in several large cities that participate in GISP.

In view of the important role of syphilis in facilitating the transmission of HIV infection, the differential impact of syphilis on racial and ethnic minorities, and the recent cyclical decline in this disease, the National Plan to Eliminate Syphilis from the United States was developed, and announced by the Surgeon General in October 1999[2]. The 6,657 cases of primary and secondary (P&S) syphilis reported in 1999 were the fewest cases reported in the United States since 1957. The P&S syphilis rate of 2.5 per 100,000 persons (the lowest since national reporting began in 1941) is below the HP2000 objective of 4 cases per 100,000 persons, but remains substantially above the goal for syphilis elimination of 0.4 cases per 100,000 persons (about 1,000 cases per year).[3]

The number of P&S syphilis cases reported in 1999 was 5.4% lower than the 7,035 cases reported in 1998. However, this decline was substantially less than the reductions of approximately 20% per year since the last major syphilis epidemic peaked in 1990. Although this smaller decline may partially reflect improved case finding and reporting, it also reflects the persistence of this disease in some populations and recent outbreaks in several geographic areas, including outbreaks among MSM.

One factor that greatly facilitates syphilis elimination efforts is that this disease continues to be primarily reported only in specific areas of the country. In 1999, 79% of the 3,115 counties in the United States reported no cases of P&S syphilis and half of all the cases were reported from only 25 (0.8%) of the counties. However, 1999 P&S syphilis rates exceeded the HP2000 objective in 265 counties (9% of the total number of U.S. counties). These 265 counties accounted for 74% of all reported P&S syphilis cases. Ninety-two percent (243 out of 265) of these counties are located in the southern United States. In addition, 9 of the 11 states with 1999 reported rates of P&S syphilis greater than the HP2000 objective are located in the South. These data suggest that comprehensive syphilis prevention efforts focused in the South could markedly reduce the number of syphilis cases occurring in the United States.

Between 1998 and 1999, the national rate of congenital syphilis decreased by 34%, from 21.6 to 14.3 cases per 100,000 live births. The continuing reduction in congenital syphilis rates, evident since the early 1990s, reflects the substantial reduction in the rate of P&S syphilis among women over the same period. In 1999, only one state had a reported rate of congenital syphilis that exceeded the HP2000 objective of 40 cases per 100,000 live births.

Although wide disparities exist in the reported rates of STDs among racial and ethnic groups, there has been a reduction in these differences for some diseases over the past five years. For example, the P&S syphilis rate reported for 1999 among African-Americans was 30 times the rate reported among whites, reflecting a substantial decline from 1995, when the rate ratio was 56. Although reporting biases likely magnify differences in reported rates by race and ethnicity, these factors continue as risk markers among the U.S. population that correlate with other, more fundamental, determinants of health status such as socioeconomic status and access to quality medical care.

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[1]Institute of Medicine. *The Hidden Epidemic: Confronting Sexually Transmitted Diseases, Committee on Prevention and Control of Sexually Transmitted Diseases*, National Academy Press, Washington, DC, 1997.

[2]National Committee for Quality Assurance (NCQA). *HEDIS 2000: Technical Specifications*, Washington, DC, 1999, pp. 68-70, 285-286.

[3]Division of STD Prevention. *The National Plan to Eliminate Syphilis from the United States*. National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention, 1999.